

FIRE BLIGHT OF LOQUAT C.

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This serious bacterial disease, caused by *Erwinia amylovora* (Burr.) Winslow et al., is known to occur on several members of the Rosaceae, particularly loquat (*Eriobotrya japonica* Lindl.); pear (*Pyrus communis* L.); apple (*Malus sylvestris* Mill.); cotoneaster (*Cotoneaster* sp.); apricot (*Prunus armeniaca* L.); plum (*Prunus* sp.); hawthorn (*Crataegus* sp.); pyracantha (*Pyracantha* sp.); rose (*Rosa* sp.); strawberry (*Fragaria* sp.).



Fig. 1. Blackened twig.

Fig. 2. Fire blight on loquat.

Fire blight is apparently indigenous to North America and has caused serious damage to pear in most areas where it is grown. In Florida, fire blight has been a serious disease not only of pears but also of loquat by destroying fruit, twigs, limbs, and foliage.

**SYMPTOMS.** The most striking characteristics of fire blight are browning of blossoms and leaves, and blackening of twigs (Fig. 1). Dead leaves tend to cling to the twigs. The bark becomes shrunk, dark to purplish, and cankers are formed in the affected areas. As the disease progresses the tree appears scorched (Fig. 2).

**LIFE CYCLE.** Bacteria survive the winter in living tissue at the edge of holdover cankers. In the spring, these cankers exhibit a milky exudate which attracts insects. Plant lice, tarnish bugs, honey bees, and other insects, as well as falling rain, help in disseminating bacteria to flowers, tender shoots, suckers, and water sprouts. Insects and man (pruning) may act as disseminating agents in the secondary spread of the disease from bloom to bloom or to shoot, limb, and trunk. For Life Cycle see Fig. 3.

**CONTROL.** The best method of control is to remove cankered limbs four inches

below the visibly affected areas. Cankered areas on the trunk should be cut out and the wound disinfected.

Bordeaux mixture (0.5-0.5-100 to 2-6-100) or streptomycin applied at a rate of 60 to 100 ppm at 5-7 day intervals, beginning when about 10% of the blossoms are open, will provide protection against spread of fire blight. Fixed copper, a material having a long residual life, is also effective applied at the rate of 2-4 lb./100 gal of water.

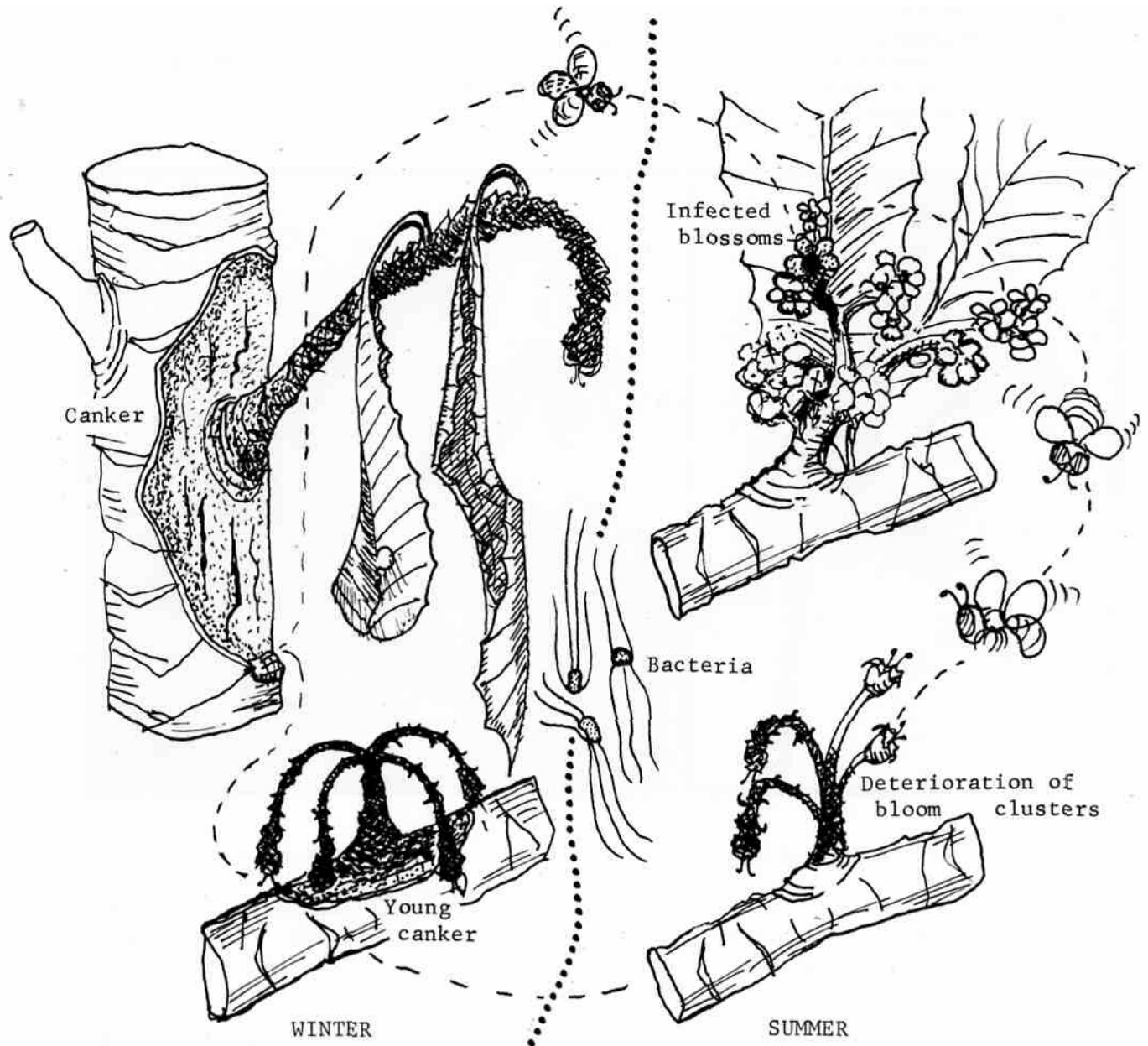


Fig. 3. Life cycle of fire blight, Erwinia amylovora.

#### Reference

Stakman, E. C., and A. G. Tolaas. 1916. Fruit and vegetable diseases and their control. Univ. Minnesota Agr. Exp. Sta. Bull. 153, p. 18-20.